



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,785

03/28/2006

Christophe Taurand

4590-503

5497

33308

7590

11/24/2009

LOWE HAUPTMAN HAM & BERNER, LLP
1700 DIAGONAL ROAD, SUITE 300
ALEXANDRIA, VA 22314

EXAMINER

TRAN, NGUYEN

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

11/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,785	Applicant(s) TAURAND, CHRISTOPHE	
	Examiner NGUYEN TRAN	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,11,14,17 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,11,14,17 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/20/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see the remarks on page 6, filed 07/27/09, with respect to claims 10 have been fully considered and are persuasive. The rejection of claim 10 has been withdrawn. However newly found reference is applied.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

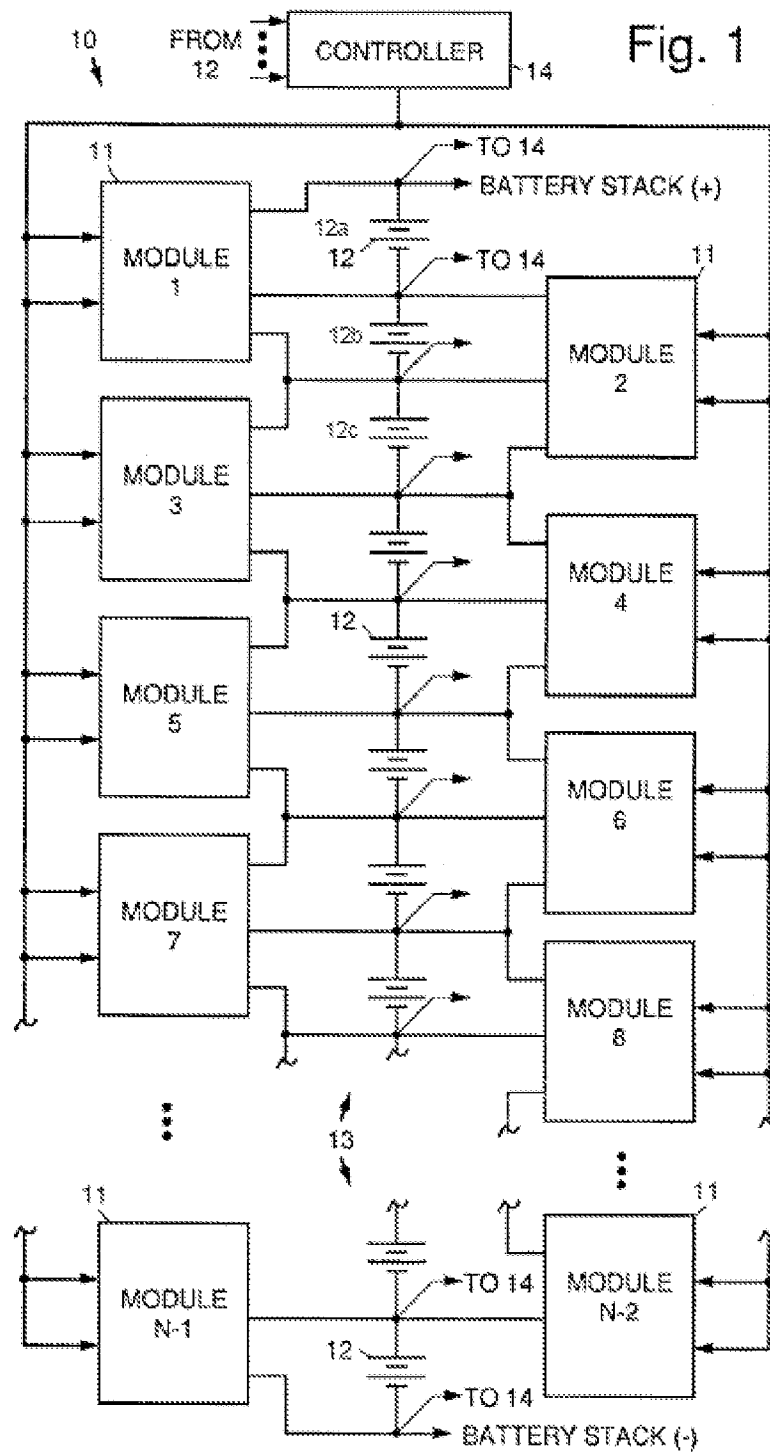
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-11, 14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis (US 5631534).

Regarding claim 10: Kutkut et al. discloses **fig. 1** an energy storage device comprising n storage elements (**i.e. battery 12**) arranged in a series network (**network of fig. 1**), said network (**network of fig. 1**) able to provide a continuous voltage across its terminals (**terminals of 12**), and $n(n-1)/2$ identical charge transfer modules (**i.e. 1-3**), each module (**i.e. 1**) pairing two storage elements (**i.e. first battery 12a and second battery 12b of figure 1**) of the said network and ensuring a bidirectional transfer of charge between these two storage elements (**i.e. first battery 12a and second battery 12b of figure 1**), and each storage element (C.sub.k) (**i.e. 12b**) being paired with each of the other n-1 storage elements (**12a and 12c**) of the network by (n-1) associated

Art Unit: 2838

modules (i.e. module 1 and 2) (i.e. storage element 12b is being paired with storage 12a of the network by associated module 1, and storage element 12b is being pared with storage 12c of the network by associated module 2) (see figure provided below).



Art Unit: 2838

Regarding claim 11: **fig. 1** wherein said modules (**i.e. the connection between modules 1-3**) are of the three-pole or four-pole type depending on whether the elements that they pair are adjacent or nonadjacent.

Regarding claim 14: **fig. 1** wherein the charge (**charging current**) transfer between a storage element **12** and the storage elements (**i.e. 12a-c**) which are paired with manifests itself by a charging (**charging current**) or discharging current of these paired elements proportional to first order to the difference between the voltage at the terminals of the said element and the average of the voltages at the terminals (**i.e. terminals of 12**) of the said storage elements (**i.e. 12a-c**) paired with.

Regarding claim 20: **fig. 1** an electronic system comprising a charger **12** and an energy storage device as claimed in claim 10, said energy storage device **12a-b** being rechargeable by the said charger **12**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (US 5631534) in view of Yeon (US 6133712).

Art Unit: 2838

Regarding claim 17: Lewis discloses the limitations of the claim(s) as discussed above, but does not specifically disclose wherein said storage elements are cells of lithium-ion battery type.

However it is well known in the art of battery charger apparatus to have a storage elements that are cells of lithium-ion battery type. For instance, Yeon discloses a battery charger that controls charging energy for the lithium-ion batteries.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to have replaced the storage elements of Lewis's invention with the lithium-ion battery type as taught by Yeon, with a reasonable expectation of success because Yeon teaches that it is well known in the art to do so, and as is widely known, rechargeable batteries are capable of storing a finite amount of charge (i.e., energy) **(Col. 1, lines 15-20)**.

Conclusion

Examiner's note: **Examiner has cited particular figures, columns and line numbers in the reference applied to the claims above for the convenience of the applicant.** Although the specified citations are representative of the teaching of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. **It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.**

In the case of amending the claimed invention, Applicant is respectfully requested to indicated the portions(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGUYEN TRAN whose telephone number is (571)270-1269. The examiner can normally be reached on M-F 7:30-5:00, OFF every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Lewis can be reached on 571-272-1838. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NT

Application/Control Number: 10/573,785
Art Unit: 2838

Page 8

*/Bao Q. Vu/
Primary Examiner, Art Unit 2838
November 21, 2009*